Hepatitis C Surveillance and Epidemiology in New York City

Angelica Bocour, MPH
Director of Surveillance, Viral Hepatitis Program
Bureau of Communicable Disease
New York City Department of Health and Mental Hygiene
Hepatitis C Surveillance in NYC

• High volume of reports
  • >200,000 hepatitis C labs
  • >90% of reports are imported electronically from labs

• Reportable hepatitis C tests: positive antibody, negative and positive RNA, genotype, ALTs reported if on same accession as a reportable lab
  • Not reportable: negative antibody, positive rapid antibody

• Surveillance Program Goals
  • Describe the epidemiology of chronic hepatitis C
  • Estimate prevalence in NYC
    • 1.4% (116,000) New Yorkers with chronic hepatitis C (Bocour et al, Epidemiol & Infect, 2018)
  • Monitor appropriate diagnostic testing, linkage to care and cure
Demographic Data from Laboratory Reports

Demographic information received

- Name
- Date of birth
- Social security number
- Sex
- Age
- Address
- Phone number

Do not receive

- Race/ethnicity
- Country of birth
- Risk factors
Acute Hepatitis C

Acute hepatitis C case finding:
• Not reliably reported by providers
• Without negative antibody test results, cannot identify seroconversions
• Currently identified through dialysis center reports and enhanced surveillance investigations
People Newly Reported with Chronic Hepatitis C in NYC, 2008–2017

Year of first report

Number of people newly reported with hepatitis C

Rate per 100,000 people

CDC case definition of chronic hepatitis C changed
Confirmatory Testing for Chronic Hepatitis C Infection

- In 2017, 11,786 people were reported with a positive antibody test
  - 9,801 (83.2%) had confirmatory testing
    - Two-thirds (66.1%) were antibody positive/RNA negative
    - Two-thirds (65.8%) had a reflex RNA test
  - 5,308 were antibody or RNA positive
Rates of People Newly Reported with Hepatitis C in NYC by Neighborhood*, 2017

*Neighborhood Tabulation Area: https://www1.nyc.gov/site/planning/data-maps/open-data/dwnnynta.page
Age Distribution of People Newly Reported with Chronic Hepatitis C in NYC, 2017
Women of Childbearing Age (15-44 years) Newly Reported with Chronic Hepatitis C

- **783** Number of women of childbearing age newly reported with hepatitis C infection in 2017
- **40.7** Rate per 100,000 people in 2017

CDC case definition of chronic hepatitis C changed

![Bar chart showing the number of people reported with chronic hepatitis C from 2008 to 2017, with a peak in 2008 and a decline in subsequent years.](chart.png)
People Ages 0 to 29 Newly Reported with Chronic Hepatitis C, NYC

- **766** Number of people ages 0 to 29 newly reported with hepatitis C infection in 2017
- **22.7** Rate per 100,000 people in 2017
- **92%** Among people ages 0 to 29, percentage of whom are 20 to 29

CDC case definition of chronic hepatitis C changed
Characteristics of People Newly Reported with Chronic Hepatitis C, 2017

Sex
- Male: 61.8%
- Female: 38.2%

Age
- 0 - 19: 1.2%
- 20 - 29: 13.2%
- 30 - 39: 18.6%
- 40 - 49: 16.0%
- 50 - 59: 21.3%
- 60 - 69: 19.7%
- ≥70: 10.0%

Borough
- Brooklyn: 29.4%
- Bronx: 24.9%
- Manhattan: 18.6%
- Queens: 18.4%
- Staten Island: 4.2%

Neighborhood poverty level
- Very high: 30.6%
- High: 23.5%
- Medium: 30.1%
- Low: 10.8%

*The Bronx includes people in Rikers Island facilities. In 2017, 204 people were reported with hepatitis C from Rikers Island.*
Enhanced Chronic Hepatitis C Surveillance, July 2009-October 2012

**Country of Birth**
- United States, 50.7%
- Unknown, 31.0%
- Dominican Republic, 4.6%
- Haiti, 1.6%
- China, Egypt, 1.3%
- Former Soviet Union, 1.0%
- Pakistan, 2.0%
- Dominican Republic, 2.0%
- Other, 5.6%

**Race/Ethnicity**
- Latino, 30.7%
- White, non-Latino, 21.2%
- Black, non-Latino, 30.1%
- Unknown, 10.1%
- Asian, non-Latino, 5.6%
- Other, 2.3%
Hepatitis C Care Cascade for NYC Residents*

*People reported to the NYC Health Department through June 30, 2017 with any hepatitis C test since July 1, 2014-June 30, 2017

**People with a positive antibody and only a negative RNA test are excluded from the first bar
Viral Hepatitis Resources

Hepatitis A, B and C in New York City: 2017 Annual Report


Contact information:
Angelica Bocour, MPH
Director of Viral Hepatitis Surveillance
Bureau of Communicable Disease
NYC Department of Health and Mental Hygiene
42-09 28th Street, 6th floor
Long Island City, NY 11101
Phone: 347-396-7614
Email: abocour@health.nyc.gov

EpiQuery: NYC Interactive Health Data
nyc.gov/health/epiquery

Communicable Disease Surveillance Data (CDSD)

Select a Year: 2017
Choose a Category:
- All
- Top 10
- Foodborne
- Parasitic
- Zoonotic and Vector-borne
- Hepatitis
- Other

Select a Disease:
- Hepatitis A
- Acute Hepatitis B
- Chronic Hepatitis B
- Acute Hepatitis C
- Chronic Hepatitis C
- Hepatitis D
- Hepatitis E
- Hepatitis, other or unspecified infectious